

a down-and-in movement by means of a 45-degree taper on stud *D*. The stud *D* is milled off at *F* to give the clamp sufficient movement to remove the work. A mechanism for drawing down both ends of two pieces, by means of a single nut, is illustrated in Fig. 9. Each piece is clamped independently, thus making it suitable for use on rough castings or forgings. Rod *A*, running through the fixture, carries ball-and-socket washers at each end and draws the end clamps *B* and *C* together. These clamps are given a down-and-in movement against the 45-degree wedge ends of rods *D* and *E*. The clamping thrust against rods *D* and *E* imparts a downward movement to the inner clamps *G* and *H*,

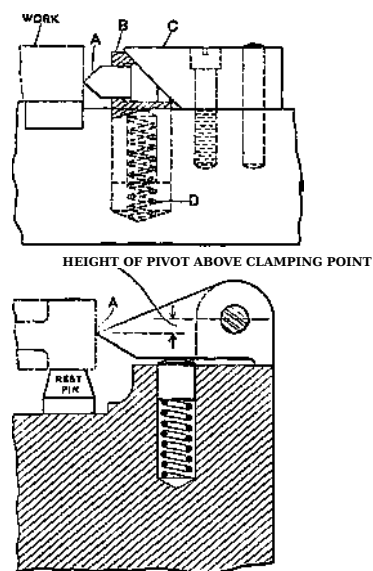


Fig. 4. Simple means for Drawing the Work down Firmly onto the Locating Pins

Fig. 5. Another Example of Clamps Drawing the Work down Firmly onto the Locating Pins

pulling the work down on the inner rest-pins. The clamps are returned by means of plungers *K* and spring *L*,-

The fixture illustrated in Fig. 10 shows a method of drawing down two clamps and throwing the work against the stop-pin by a single clamping operation. Tightening nut *A* clamps down clamp *C* and pulls up rod *B* against the 45-degree tapered end of rod *D*, giving a lateral movement against plunger *E*. Plunger *E* is carried by the floating stud *G*. On the upper end of stud *G* is a 15-degree taper that operates against plunger *H*. Plunger *E* imparts, first, an upward movement to floating stud *G* which,